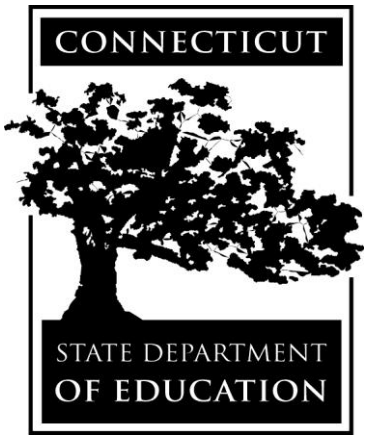
Mathematics Crosswalk
Common Core State Standards to
Connecticut State Standards



Grade 3

OPERATIONS AND ALGEBRAIC THINKING			
Represent and solve problems involving multiplication and division.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.1 Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, *describe a context in which a total number of objects can be expressed as 5 × 7.*	**CT.2.2.1.3** Represent multiplication and division with factors of one, two, five and ten using a variety of models and strategies such as arrays, pictures, skip counting, extending number patterns, and repeated addition and subtraction; describe the connection between multiplication and division. **CT.3.2.2.10** Recall the multiplication and division facts for one, two, three, four, five and ten. **CT.3.2.2.11** Write multiplication and division story problems to match a given multiplication or division number sentence and vice versa; solve the problems and justify the solution. **CT.3.2.2.14** Solve problems involving the multiplication and division of two- and three- digit numbers by one digit (two, three, four, five or ten) with models, arrays and pictures of sets.	**CMT 3.5 Models for Operations** **A.** Relate multiplication and division facts to rectangular arrays and pictures **CMT 4.5 Models for Operations** **A.** Identify members of multiplication and division fact families from arrays (factors of 2, 3, 4, 5 and 10) **CMT 4.5 Models for Operations** **C.** Write a story problem that matches a given addition, subtraction or multiplication sentence. Use 1- and 2-digit numbers for addition and subtraction. Use 1-digit factors for multiplication. **CMT 5.5 Models for Operations** **A.** Identify the appropriate operation or number sentence to solve a story problem. **CMT 5.5 Models for Operations** **B.** Write story problems from multiplication or division number sentences, using 1- and 2-digit numbers.	Multiplication and division are introduced in the Grade 2 CT standards. CCSS has separate standards for multiplication and division and the CT standards include both operations in each standard.

OPERATIONS AND ALGEBRAIC THINKING			
Represent and solve problems involving multiplication and division.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.2. Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.*	**CT.2.2.1.3** Represent multiplication and division with factors of one, two, five and ten using a variety of models and strategies such as arrays, pictures, skip counting, extending number patterns, and repeated addition and subtraction; describe the connection between multiplication and division. **CT.3.2.2.10** Recall the multiplication and division facts for one, two, three, four, five and ten. **CT.3.2.2.11** Write multiplication and division story problems to match a given multiplication or division number sentence and vice versa; solve the problems and justify the solution. **CT.3.2.2.14** Solve problems involving the multiplication and division of two- and three- digit numbers by one digit (two, three, four, five or ten) with models, arrays and pictures of sets. **CT.4.2.2.17** Recall the multiplication and division facts one through ten.	**CMT 3.5 Models for Operations** **A.** Relate multiplication and division facts to rectangular arrays and pictures. **CMT 4.5 Models for Operations** **A.** Identify members of multiplication and division fact families from arrays (factors of 2, 3, 4, 5 and 10).	Multiplication and division are introduced in the Grade 2 CT standards.

OPERATIONS AND ALGEBRAIC THINKING			
Represent and solve problems involving multiplication and division.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	**CT.3.1.2.4** Describe mathematical relationships and situations involving computation of whole numbers (addition, subtraction, multiplication and division) using words, symbols, open number sentences and equations. For example: 56 + □ = 100 and 3 x 5 = 9 + 6. **CT.3.2.2.10** Recall the multiplication and division facts for one, two, three, four, five and ten. **CT.3.2.2.11** Write multiplication and division story problems to match a given multiplication or division number sentence and vice versa; solve the problems and justify the solution. **CT.3.2.2.14** Solve problems involving the multiplication and division of two- and three- digit numbers by one digit (two, three, four, five or ten) with models, arrays and pictures of sets.	**CMT 4.9 Solve Word Problems** **A.** Solve one-step story problems involving whole numbers and money amounts. Use 2- and 3-digit numbers in addition and subtraction problems. Use 1- and 2-digit numbers in multiplication problems. **CMT 5.9 Solve Word Problems** **A.** Solve one-step problems involving whole numbers and money amounts with or without extraneous information. Use all operations.	Solving multiplication and division word problems is assessed on the Grades 4 and 5 CMT. The use of drawings or equations is not included on the CMT; however, students may use these as a problem solving strategy.

OPERATIONS AND ALGEBRAIC THINKING			
Represent and solve problems involving multiplication and division.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.	**CT.3.1.2.4** Describe mathematical relationships and situations involving computation of whole numbers (addition, subtraction, multiplication and division) using words, symbols, open number sentences and equations. For example: 56 + □ = 100 and 3 x 5 = 9 + 6. **CT.3.1.3.5** Demonstrate understanding of equivalence as a balanced relationship of quantities by using the equals sign to relate two quantities that are equivalent and the inequality symbols, < and >, to relate two quantities that are not equivalent. (23 x 5 > 23 x 2) **CT.3.2.2.10** Recall the multiplication and division facts for one, two, three, four, five and ten.	**CMT 3.6 Basic Facts** **B.** Multiply and divide by 2, 5 and 10. **CMT 4.6 Basic Facts** **A.** Find the missing product in a multiplication equation where one factor is 2, 3, 4, 5 or 10. **B.** Find the missing factor in a division equation where one factor is 2, 3, 4, 5 or 10. **CMT.4.23 Algebraic Concepts** **A.** Solve simple one-step algebraic equations involving addition, subtraction and fact families. **CMT 5.6 Basic Facts** **A.** Multiply and divide facts. **CMT.5.23 Algebraic Concepts** **A.** Solve simple one-step algebraic equations involving addition, subtraction, multiplication and fact families. **CMT 6.6 Basic Facts** **A.** Multiply and divide facts. **CMT.6.23 Algebraic Concepts** **A.** Solve simple 1-step algebraic equations. **CMT.7.23 Algebraic Concepts** **A.** Solve simple 1- and 2-step algebraic equations.	Knowing multiplication and division facts is necessary to solve multiplication and division equations and to determine unknowns. CT standards are limited to multiplication and division facts for 1, 2,3,4,5 and 10 at Grade 3. Determining the unknown whole number in a multiplication or division equation is assessed on the Grades 4, 5, 6 and 7 CMT.

OPERATIONS AND ALGEBRAIC THINKING			
Understand properties of multiplication and the relationship between multiplication and division.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.5 Apply properties of operations as strategies to multiply and divide. Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by multiplying 3 × 5 = 15 then multiplying 15 × 2 = 30, or by multiplying 5 × 2 = 10 then multiplying 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.) (Students need not use formal terms for these properties.)	**CT.3.1.2.4** Describe mathematical relationships and situations involving computation of whole numbers (addition, subtraction, multiplication and division) using words, symbols, open number sentences and equations. For example: 56 + □ = 100 and 3 x 5 = 9 + 6. **CT.3.1.3.6** Solve problems and demonstrate an understanding of equivalence using the equals sign in number sentences that reflect the commutative and associative properties of addition and multiplication of whole numbers such as 3 x 5 = 5 x 3. **CT.4.1.3.4** Represent possible values by using symbols (variables) to represent quantities in expressions and number sentences. Use number sentences (equations) to model and solve word problems. **CT.4.1.3.5** Solve problems and demonstrate an understanding of equivalence in mathematical situations that reflect the commutative and associative properties of addition and multiplication of whole numbers and the distributive property.	**CMT 3.6 Basic Facts** **B.** Multiply and divide by 2, 5 and 10. **CMT 3.7 Computations with Whole Numbers and Decimals** **B.** Multiply and divide 2-digit whole numbers by one digit. **CMT 4.6 Basic Facts** **A.** Find the missing product in a multiplication equation where one factor is 2, 3, 4, 5 or 10. **B.** Find the missing factor in a division equation where one factor is 2, 3, 4, 5 or 10. **CMT 4.7 Computations with Whole Numbers and Decimals** **B.** Multiply and divide 2-digit whole numbers by one digit. **CMT 5.6 Basic Facts** **A.** Multiply and divide facts. **CMT 5.7 Computations with Whole Numbers and Decimals** **C.** Multiply and divide 2- and 3-digit whole numbers and money amounts less than $10 by 1-digit numbers. **CMT 6.6 Basic Facts** **A.** Multiply and divide facts.	Applying properties of operations as strategies to multiply and divide is not specified in the CT standards and the CMT. CT standards are limited to multiplication and division facts for 1, 2,3,4,5 and 10 at Grade 3.

OPERATIONS AND ALGEBRAIC THINKING			
Understand properties of multiplication and the relationship between multiplication and division.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.6 Understand division as an unknown-factor problem. For example, divide 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.	**CT.2.2.1.3** Represent multiplication and division with factors of one, two, five and ten using a variety of models and strategies such as arrays, pictures, skip counting, extending number patterns, and repeated addition and subtraction; describe the connection between multiplication and division. **CT.3.1.2.4** Describe mathematical relationships and situations involving computation of whole numbers (addition, subtraction, multiplication and division) using words, symbols, open number sentences and equations. For example: 56 + □ = 100 and 3 x 5 = 9 + 6. **CT.3.1.3.6** Solve problems and demonstrate an understanding of equivalence using the equals sign in number sentences that reflect the commutative and associative properties of addition and multiplication of whole numbers such as 3 x 5 = 5 x 3. **CT.4.1.3.4** Represent possible values by using symbols (variables) to represent quantities in expressions and number sentences. Use number sentences (equations) to model and solve word problems.	**CMT 3.5 Models for Operations** **A.** Relate multiplication and division facts to rectangular arrays and picture. **CMT 3.6 Basic Facts** **B.** Multiply and divide by 2, 5 and 10. **CMT 4.5 Models for Operations** **A.** Identify members of multiplication and division fact families from arrays (factors of 2, 3, 4, 5 and 10). **CMT 4.6 Basic Facts** **B.** Find the missing factor in a division equation where one factor is 2, 3, 4, 5 or 10. **CMT 5.6 Basic Facts** **A.** Multiply and divide facts. **CMT 5.7 Computations with Whole Numbers and Decimals** **B.** Multiply and divide multiples of 10 and 100 by 10 and 100. **CMT 6.6 Basic Facts** **A.** Multiply and divide facts. **CMT 6.7 Computations with Whole Numbers and Decimals** **B.** Multiply and divide whole numbers and decimals by 10, 00 and 1,000.	CT standards include both multiplication and division in the same standard. CT standards are limited to multiplication and division facts for 1, 2,3,4,5 and 10 at Grade 3. Understanding division as an unknown-factor problem is assessed on the Grades 3, 4, 5 and 6 CMT.

OPERATIONS AND ALGEBRAIC THINKING			
Understand properties of multiplication and the relationship between multiplication and division.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.6 (Cont.)	**CT.4.1.3.5** Solve problems and demonstrate an understanding of equivalence in mathematical situations that reflect the commutative and associative properties of addition and multiplication of whole numbers and the distributive property.	**CMT 6.7 Computations with Whole Numbers and Decimals** **C.** Multiply and divide 2- and 3-digit whole numbers and money amounts by 10digit numbers and 1-digit decimals.	
Multiply and divide within 100.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By end of Grade 3, know from memory all products of one-digit numbers.	**CT.3.2.2.10** Recall the multiplication and division facts for one, two, three, four, five and ten. **CT.4.2.2.17** Recall the multiplication and division facts one through ten.	**CMT 3.6 Basic Facts** **B.** Multiply and divide by 2, 5 and 10. **CMT 4.6 Basic Facts** **A.** Find the missing product in a multiplication equation where one factor is 2, 3, 4, 5 or 10. **B.** Find the missing factor in a division equation where one factor is 2, 3, 4, 5 or 10. **CMT 5.6 Basic Facts** **A.** Multiply and divide facts. **CMT 6.6 Basic Facts** **A.** Multiply and divide facts.	CT standards are limited to multiplication and division facts for 1, 2,3,4,5 and 10 at Grade 3. CT standards place more emphasis on addition and subtraction than on multiplication in Grade 3. Multiplication and division facts are assessed on the Grades 3, 4, 5 and 6 CMT.

OPERATIONS AND ALGEBRAIC THINKING			
Solve problems involving the four operations, and identify and explain patterns in arithmetic.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order [Order of Operations]).	**CT.3.1.2.4** Describe mathematical relationships and situations involving computation of whole numbers (addition, subtraction, multiplication and division) using words, symbols, open number sentences and equations. For example: 56 + □ = 100 and 3 x 5 = 9 + 6. **CT.3.2.2.12** Solve problems involving addition and subtraction of two- and three-digit whole numbers and money amounts up to $100.00 with and without regrouping, using a variety of strategies, including models. **CT.3.2.2.13** Create and solve addition and subtraction word problems by using place value patterns and algebraic properties (commutative and associative for addition). **CT.3.2.2.14** Solve problems involving the multiplication and division of two- and three- digit numbers by one digit (2, 3, 4, 5 or 10) with models, arrays and pictures of sets.	**CMT.3.11 Estimating Solutions to Problems** **A.** Identify a reasonable estimate to a problem. **CMT.4.11 Estimating Solutions to Problems** **A.** Identify a reasonable estimate to a problem, including estimating change from $1, $5 and $10. **CMT.5.11 Estimating Solutions to Problems** **A.** Identify a reasonable estimate to a problem, including estimating change. **CMT 6.9 Solve Word Problems** **B.** Solve two-step story problems involving whole numbers, decimals, fractions and money amounts without extraneous information. **C.** Solve two-step problems involving whole numbers and decimals with extraneous information. **D.** Solve two-step problems involving whole numbers, decimals or money amounts, and explain how the answer was determined. **CMT.6.11 Estimating Solutions to Problems** **A.** Identify a reasonable estimate to a problem, including estimating change. **B.** Determine a reasonable estimate, and describe the strategy used to arrive at the estimate. **C.** Given an estimate as a solution, judge its reasonableness and justify the decision.	Two-step word problems with whole numbers are not specified in the CT standards until Grade 5 and are assessed on the Grades 6, 7 and 8 CMT. Representing problems using equations with a variable is introduced in the Grade 4 CT standards and is assessed on the Grade 8 CMT. Order of operations is introduced in the Grade 6 CT standards and is assessed on the Grade 7 CMT. Assessing the reasonableness of answers to whole number word problems using estimation strategies is assessed on the Grades 3, 4, 5, 6, 7 and 8 CMT.

OPERATIONS AND ALGEBRAIC THINKING			
Solve problems involving the four operations, and identify and explain patterns in arithmetic.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.8 (Cont.)	**CT.3.2.2.16** Use a variety of estimation strategies to determine and justify the reasonableness of an answer to a computation or word problem involving addition and subtraction of two- and three-digit whole numbers and money amounts up to $100.00. **CT.4.1.3.4** Represent possible values by using symbols (variables) to represent quantities in expressions and number sentences. Use number sentences (equations) to model and solve word problems. **CT.4.1.3.5** Solve problems and demonstrate an understanding of equivalence in mathematical situations that reflect the commutative and associative properties of addition and multiplication of whole numbers and the distributive property. **CT.4.2.2.14** Develop and use a variety of computation strategies, including place value concepts, number lines and the commutative and associative properties, to add and subtract three- and four-digit numbers and money amounts up to $1,000.00.	**CMT 7.9 Solve Word Problems** **C.** Solve multistep problems involving whole numbers, decimals, money amounts and mixed numbers, including means. **CMT.7.11 Estimating Solutions to Problems** **A.** Identify a reasonable estimate to a problem. **B.** Determine a reasonable estimate, and describe the strategy used to arrive at the estimate. **C.** Given an estimate as a solution, judge its reasonableness and justify the decision. **CMT.7.23 Algebraic Concepts** **B.** Use order of operations. **CMT 8.9 Solve Word Problems** **B.** Solve multistep problems involving whole numbers, mixed numbers, money amounts and decimals. **CMT.8.11 Estimating Solutions to Problems** **A.** Determine a reasonable estimate, and describe the strategy used to arrive at the estimate. **B.** Given an estimate as a solution for problems involving whole numbers, mixed numbers, decimals and percents, judge its reasonableness and justify the decision. **CMT.8.23 Algebraic Concepts** **E.** Write an expression or equation to represent a situation.	

OPERATIONS AND ALGEBRAIC THINKING			
Solve problems involving the four operations, and identify and explain patterns in arithmetic.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.8 (Cont.)	**CT.4.2.2.15** Solve contextual problems involving addition and subtraction of whole numbers using a variety of methods, including writing appropriate number sentences (equations) and explaining the strategies used. **CT.5.2.2.14** Write and solve multistep problems for all four operations involving multidigit whole numbers and money amounts and explain how answers were determined, orally and in writing. **CT.5.2.2.19** Use estimation to predict results and to recognize when an answer is or is not reasonable or will result in an overestimate or underestimate and explain the reasoning used orally and in writing.		

OPERATIONS AND ALGEBRAIC THINKING			
Solve problems involving the four operations, and identify and explain patterns in arithmetic.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.	**CT.3.1.1.2** Create and construct numerical and spatial patterns and sequences that repeat and grow. **CT.3.1.1.3** Analyze, describe and extend repeating and growing patterns and sequences, including those found in real-world contexts, by constructing and using tables, graphs and charts. **CT.3.1.2.4** Describe mathematical relationships and situations involving computation of whole numbers (addition, subtraction, multiplication and division) using words, symbols, open number sentences and equations. For example: 56 + □ = 100 and 3 x 5 = 9 + 6. **CT.3.2.2.13** Create and solve addition and subtraction word problems by using place value patterns and algebraic properties (commutative and associative for addition). **CT.4.1.1.2** Develop and test generalizations based on observable patterns and relationships and describe the rules for number patterns using equations. For example: In this sequence 1, 6, 16, 36 ..., to get the next number the current number can be doubled and four added to the product.	**CMT 3.22 Patterns** **A.** Extend or complete patterns, or identify rules using numbers and attributes. **B.** Extend or complete patterns, and identify rules using numbers and attributes. **CMT 4 - 6.22 Patterns** **A.** Identify the missing terms in a pattern, or identify rules for a given pattern using whole numbers and attributes. **B.** Extend or complete patterns and state rules for given patterns using whole numbers and attributes. **CMT 7-8.22 Patterns** **A.** Identify the missing terms in a pattern, or identify rules for a given pattern using numbers and attributes. **B.** Extend or complete patterns and state rules for given patterns using numbers and attributes. **CMT 7.23 Algebraic Concepts** **B.** Use order of operations.	CT standards place more emphasis on addition and subtraction than on multiplication in Grade 3. Arithmetic patterns are assessed on the Grades 3, 4, 5, 6, 7 and 8 CMT.

NUMBERS AND OPERATIONS IN BASE TEN			
Use place value understanding and properties of operations to perform multi-digit arithmetic. (A range of algorithms may be used.)			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.	**CT.3.2.1.3** Round three- and four-digit numbers to the nearest hundred and thousand using place value models, number lines and number patterns. **CT.3.2.1.4** Represent three- and four-digit numbers up to ten thousand in expanded forms such as 5,472 = (5 x 1,000) + (4 x 100) + (7 x 10) + (2 x 1) and regrouped forms such as 5,472 = (4 x 1,000) + (14 x 100) + (6 x 10) + (12 x 1). Use the forms to support computational strategies.	**CMT 3.4 Order, Magnitude and Rounding of Numbers** **C.** Round 2-digit whole numbers in context. **CMT 4.4 Order, Magnitude and Rounding of Numbers** **C.** Round 2- and 3-digit whole numbers in context. **CMT 5.4 Order, Magnitude and Rounding of Numbers** **E.** Round whole numbers in context.	CCSS focuses on rounding to the nearest 10 or 100 in Grade 3 and then rounding to any place in Grade 4. Rounding to the nearest 10 or 100 is assessed on the Grades 4 and 5 CMT.
CC.3.NBT.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	**CT.3.2.1.4** Represent three- and four-digit numbers up to ten thousand in expanded forms such as 5,472 = (5 x 1,000) + (4 x 100) + (7 x 10) + (2 x 1) and regrouped forms such as 5,472 = (4 x 1,000) + (14 x 100) + (6 x 10) + (12 x 1). Use the forms to support computational strategies. **CT.3.2.2.12** Solve problems involving addition and subtraction of two- and three-digit whole numbers and money amounts up to $100.00 with and without regrouping using a variety of strategies, including models **CT.3.2.2.13** Create and solve addition and subtraction word problems by using place value patterns and algebraic properties (commutative and associative for addition).	**CMT 3.7 Computation with Whole Numbers and Decimals** **A.** Add and subtract 1- and 2-digit whole numbers without regrouping **B** Add 1- and 2-digit whole numbers without regrouping. **CMT 4.7 Computation with Whole Numbers and Decimals** **A.** Add and subtract 2- and 3-digit whole numbers and money amounts less than $10 with and without regrouping. **CMT 5.7 Computation with Whole Numbers and Decimals** **A.** Add and subtract 2-, 3- and 4-digit whole numbers and money amounts less than $100.	Addition and subtractions of whole numbers within 1000 is assessed on the Grades 3, 4 and 5 CMT.

NUMBERS AND OPERATIONS IN BASE TEN			
Use place value understanding and properties of operations to perform multi-digit arithmetic. (A range of algorithms may be used.)			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.NBT.3 Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.	**CT.3.2.2.14** Solve problems involving the multiplication and division of two- and three-digit numbers by one digit (two, three, four, five or ten) with models, arrays and pictures of sets. **CT.5.2.2.11** Estimate products and missing factors using multiples of ten, one hundred and one thousand.	**CMT 4.7 Computation with Whole Numbers and Decimals** **B.** Multiply and divide 2-digit whole numbers by one digit. **CMT 5.7 Computation with Whole Numbers and Decimals** **B.** Multiply and divide multiples of 10 and 100 by 10 and 100. **C.** Multiply and divide 2- and 3-digit whole numbers and money amounts less than $10 by 1-digit numbers.	Multiplying one-digit numbers by multiples of 10 is not specified in the CT standards. Multiplying by multiples of 10 is assessed on the Grade 4 and 5 CMT.

NUMBER AND OPERATIONS – FRACTIONS (Grade 3 expectations are limited to fractions with denominators 2, 3, 4, 6 and 8)			
Develop understanding of fractions as numbers.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.NF.1 Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.	**CT.K.2.1.6.** Use a variety of models and familiar objects to: • Identify one whole and one half of an object. • Recognize a half and put two halves of an object together to make a whole. • Form a whole from two smaller sets that have equal amounts. **CT.2.1.6** Use a variety of models and familiar objects to: • Make a whole of equal size parts of familiar objects. • Show and identify equal size pieces of a whole as halves, thirds or fourths. • Identify pieces of a whole as not being halves, thirds or fourths. **CT.2.2.1.5** Use a variety of models to represent and describe parts of groups as unit fractions 1/2 through 1/10. **CT.2.2.1.6** Estimate and determine 1/2, 1/3 and 1/4 of a small group of up to twenty objects. For example: Find 1/2, 1/3 or 1/4 of 12 cookies. **CT.3.2.1.5** Represent fractions with like and unlike denominators of two, three, four, five, six and eight using a variety of materials; label the fractional parts using words and fraction symbols.	**CMT 3.2 Pictorial Representation of Numbers** **B.** Identify fractional parts of regions and sets using pictures and vice versa. **C.** Label and/or shade fractional parts of regions and sets. **CMT 4.2 Pictorial Representation of Numbers** **A.** Relate fractions and decimals to pictorial representations and vice versa. **B.** Relate fractions of regions and sets to pictures and vice versa. **C.** Label and/or shade fractional parts of regions and/or sets. **CMT 5.2 Pictorial Representation of Numbers** **B.** Relate fractions and mixed numbers to pictures and vice versa. **C.** Identify and/or shade fractional parts of regions, sets or mixed numbers in pictures. **CMT 6.2 Pictorial Representation of Numbers** **A.** Relate fractions, mixed numbers, decimals and percents to heir pictorial representations and vice versa. **B.** Identify and/or shade fractional parts of regions or sets, decimals (tenths and hundredths) and mixed numbers in pictures.	Fractions are introduced in the Grade 3 CCSS but are introduced in the Grade K CT standards. Pictorial representations of fractions are assessed on the Grades 3, 4, 5 and 6 CMT.

NUMBER AND OPERATIONS – FRACTIONS (Grade 3 expectations are limited to fractions with denominators 2, 3, 4, 6 and 8)			
Develop understanding of fractions as numbers.			
CC.3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.NF.2a Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.	**CT.2.2.1.5** Use a variety of models to represent and describe parts of groups as unit fractions ½ through 1⁄10. **CT.3.2.1.6** Locate, label and estimate fractions with like and unlike denominators of two, three, four, five, six and eight by constructing and using models, pictures and number lines. **CT.4.2.1.10** Construct and use models, pictures and number lines, including rulers, to identify wholes and parts of a whole, including a part of a group or groups, as simple fractions and mixed numbers.	**CMT 4.4 Order, Magnitude and Rounding of Numbers** **D.** Identify points representing 2- and 3-digit whole numbers, fractions (halves, thirds, fourths) and decimals (tenths) on a number line and vice versa. **CMT 5.4 Order, Magnitude and Rounding of Numbers** **G.** Locate points (fractions, decimals and whole numbers) on number lines and scales. **CMT 6.4 Order, Magnitude and Rounding of Numbers** **G.** Locate points on number lines and scales, including fractions, decimals and integers. **CMT 7.4 Order, Magnitude and Rounding of Numbers** **F.** Locate points on number lines and scales, including fractions, mixed numbers, decimals and integers. **CMT 8.4 Order, Magnitude and Rounding of Numbers** **D.** Locate points on number lines, including fractions, mixed numbers, decimals and integers.	Representing a fraction on a number line is introduced in the Grade 3 CCSS but is introduced in the Grade 2 CT standards. Representing a fraction on a number line is assessed on the Grades 4, 5, 6, 7 and 8 CMT.

NUMBER AND OPERATIONS – FRACTIONS (Grade 3 expectations are limited to fractions with denominators 2, 3, 4, 6 and 8)			
Develop understanding of fractions as numbers.			
CC.3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.NF.2b Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.	**CT.3.2.1.6** Locate, label and estimate fractions with like and unlike denominators of two, three, four, five, six and eight by constructing and using models, pictures and number lines. **CT.4.2.1.10** Construct and use models, pictures and number lines, including rulers, to identify wholes and parts of a whole, including a part of a group or groups, as simple fractions and mixed numbers. **CT.5.2.1.7** Choose and use benchmarks to approximate locations of fractions, mixed numbers and decimals, on number lines and coordinate grids.	**CMT 4.4 Order, Magnitude and Rounding of Numbers** **D.** Identify points representing 2- and 3-digit whole numbers, fractions (halves, thirds, fourths) and decimals (tenths) on a number line and vice versa. **CMT 5.4 Order, Magnitude and Rounding of Numbers** **G.** Locate points (fractions, decimals and whole numbers) on number lines and scales. **CMT 6.4 Order, Magnitude and Rounding of Numbers** **G.** Locate points on number lines and scales, including fractions, decimals and integers. **CMT 7.4 Order, Magnitude and Rounding of Numbers** **F.** Locate points on number lines and scales, including fractions, mixed numbers, decimals and integers. **CMT 8.4 Order, Magnitude and Rounding of Numbers** **D.** Locate points on number lines, including fractions, mixed numbers, decimals and integers.	Representing a fraction on a number line is introduced in the Grade 3 CCSS but is introduced in the Grade 2 CT standards. Representing a fraction on a number line is assessed on the Grades 4, 5, 6, 7 and 8 CMT.

NUMBER AND OPERATIONS – FRACTIONS (Grade 3 expectations are limited to fractions with denominators 2, 3, 4, 6 and 8)			
Develop understanding of fractions as numbers.			
CC.3.NF.3 Explain equivalence of fractions in special case, and compare fractions by reasoning about their size.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.NF.3a Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.	**CT.3.2.1.7** Determine equivalence of and compare and order fractions through the construction and use of models, pictures and number lines with like and unlike denominators of two, three, four, five, six and eight, including identifying a whole object or a whole set of objects as a fraction with the same numerator and denominator. **CT.4.2.1.7** Construct and use number lines, pictures and models, including rulers, to determine and identify equivalent ratios and fractions.	**CMT 4.3 Equivalent Fractions, Decimals and Percents** **A.** Relate equivalent fractions to pictorial representations. **CMT 5.3 Equivalent Fractions, Decimals and Percents** **A.** Rename equivalent fractions. **G.** Locate points (fractions, decimals and whole numbers) on number lines and scales. **CMT 6.4 Order, Magnitude and Rounding of Numbers** **G.** Locate points on number lines and scales, including fractions, decimals and integers.	Equivalent fractions is introduced and developed in the Grades 3 and 4 CCSS and CT standards but is assessed on the Grades 4, 5 and 6 CMT.
CC.3.NF.3b Recognize and generate simple equivalent fractions, e.g., ½ = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.	**CT.3.2.1.7** Determine equivalence of and compare and order fractions through the construction and use of models, pictures and number lines with like and unlike denominators of two, three, four, five, six and eight, including identifying a whole object or a whole set of objects as a fraction with the same numerator and denominator. **CT.4.2.1.7** Construct and use number lines, pictures and models, including rulers, to determine and identify equivalent ratios and fractions.	**CMT 4.3 Equivalent Fractions, Decimals and Percents** **A.** Relate equivalent fractions to pictorial representations. **CMT 5.3 Equivalent Fractions, Decimals and Percents** **A.** Rename equivalent fractions. **CMT 6.3 Equivalent Fractions, Decimals and Percents** **A.** Rename equivalent fractions and mixed numbers.	Equivalent fractions is introduced and developed in the Grades 3 and 4 CCSS and CT standards but is assessed on the Grades 4, 5 and 6 CMT.

NUMBER AND OPERATIONS – FRACTIONS (Grade 3 expectations are limited to fractions with denominators 2, 3, 4, 6 and 8)			
Develop understanding of fractions as numbers.			
CC.3.NF.3 Explain equivalence of fractions in special case, and compare fractions by reasoning about their size.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3NF.3c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.*	**CT.3.2.1.7** Determine equivalence of and compare and order fractions through the construction and use of models, pictures and number lines with like and unlike denominators of two, three, four, five, six and eight, including identifying a whole object or a whole set of objects as a fraction with the same numerator and denominator. **CT.4.2.1.7** Construct and use number lines, pictures and models, including rulers, to determine and identify equivalent ratios and fractions.	**CMT 4.3 Equivalent Fractions, Decimals and Percents** **A.** Relate equivalent fractions to pictorial representations. **CMT 5.3 Equivalent Fractions, Decimals and Percents** **A.** Rename equivalent fractions. **CMT 6.3 Equivalent Fractions, Decimals and Percents** **A.** Rename equivalent fractions and mixed numbers.	Equivalent fractions is introduced and developed in the Grades 3 and 4 CCSS and CT standards but is assessed on the Grades 4, 5 and 6 CMT.

NUMBER AND OPERATIONS – FRACTIONS (Grade 3 expectations are limited to fractions with denominators 2, 3, 4, 6 and 8)			
Develop understanding of fractions as numbers.			
CC.3.NF.3 Explain equivalence of fractions in special case, and compare fractions by reasoning about their size.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.NF.3d Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.	**CT.3.2.1.7** Determine equivalence of and compare and order fractions through the construction and use of models, pictures and number lines with like and unlike denominators of two, three, four, five, six and eight, including identifying a whole object or a whole set of objects as a fraction with the same numerator and denominator. **CT.4.2.1.9** Construct and use models, pictures and number lines, including rulers, to compare and order fractional parts of a whole and mixed numbers with like and unlike denominators of two, three, four, five, six, eight and ten.	**CMT 4.4 Order, Magnitude and Rounding of Numbers** **B.** Describe magnitude of 2- and 3-digit whole numbers, fractions, mixed numbers and decimals (tenths). **CMT 5.4 Order, Magnitude and Rounding of Numbers** **B.** Order mixed numbers, fractions and decimals. **D.** Describe magnitude of mixed numbers and fractions. **CMT 6.4 Order, Magnitude and Rounding of Numbers** **B.** Order mixed numbers, fractions and decimals. **D.** Describe magnitude of fractions and mixed numbers. **CMT 7.4 Order, Magnitude and Rounding of Numbers** **B.** Order fractions and decimals including mixed numbers in context. **D.** Describe magnitude or order of fractions and mixed numbers in context.	Comparing two fractions with the same numerator or the same denominator by reasoning about their size is not specified in the CT standards. Comparing fractions is introduced and developed in the Grades 3 and 4 CCSS and CT standards but is assessed on the Grades 4, 5, 6 and 7 CMT.

MEASUREMENT AND DATA			
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.MD.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.	**CT.3.3.3.7** Use calendar and clocks to plan and sequence events and to identify events and times as occurring in the a.m. and p.m. **CT.3.3.3.8** Solve problems involving telling time to the nearest quarter hour, five minutes and minute using analog and digital clocks. **CT.4.3.3.6** Use calendars and clocks to solve problems and schedule events involving elapsed time.	**CMT.3.14 Time** **A.** Tell time to the nearest hour, half-hour and quarter-hour using analog and digital clocks. **B.** Solve problems involving time, elapsed time (15-minute increments) and calendars. **CMT 4.14 Time** **A.** Solve problems involving time, elapsed time (minutes and hours) and calendars. **B.** Solve problems involving conversions of measures of time. **CMT 5.14 Time** **A.** Solve problems involving elapsed time (a.m. and p.m.).	Telling time to the nearest minute and measuring time intervals in minutes is not assessed on the CMT.

MEASUREMENT AND DATA			
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilogram (kg), and liters (l). (Excludes compound units such as cm^3 and finding the geometric volume of a container.) Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems [problems involving notions of "times as much"; see Glossary, Table 2]).	**CT.3.3.3.9** Develop an understanding of and describe the relationships between and among appropriate units of measure through concrete experiences (ounces and pounds; gram and kilograms; inches, feet and yards; meters and kilometers; cups, pints and quarts; and milliliters and liters). **CT.3.3.3.10** Estimate and measure using nonstandard units and appropriate customary and metric tools and units: • length and perimeter to the nearest ¼ inch or ½ centimeter; • area in square in. or square cm; • capacity in cups, pints, quarts, milliliters or liters; • weight in ounces, pounds and grams; • temperature to the nearest degree; and • volume using in. cubes and cm cubes. **CT.3.3.3.11** Describe and use estimation strategies that can identify a reasonable answer to a measurement problem when an estimate is appropriate. **CT.4.3.3.8** Use customary and metric tools and units and non-standard units to estimate, measure and solve problems involving length and perimeter to the nearest quarter-inch or half-centimeter, area, capacity, weight, mass, temperature and volume.	**CMT 5.16 Customary and Metric Measurement** **C.** Identify appropriate customary or metric units of measure (length, capacity and mass) for a given situation. **CMT 6.16 Customary and Metric Measurement** **C.** Identify appropriate customary or metric units of measure (length, temperature, capacity and mass) for a given situation. **CMT 7.16 Customary and Metric Measurement** **C.** Identify appropriate customary or metric units of measure for a given situation. **CMT 8.16 Customary and Metric Measurement** **C.** Solve problems involving conversions and/or operations within customary or metric units of measure.	Measuring and estimating liquid volumes and masses of objects requires a performance task and is not assessed on the CMT. Identifying appropriate units of mass and capacity for a given situation is assessed on the Grades 5, 6 and 7 CMT. Solving one-step word problems involving masses or volumes that are given in the same units is assessed on the Grade 8 CMT.

MEASUREMENT AND DATA			
Represent and interpret data.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.	**CT.2.4.1.2** Collect and systematically organize and represent data that answer questions using lists, charts and tables, tallies, glyphs (coded pictures), picture graphs and bar graphs. **CT.3.4.1.2** Collect and organize data that answer questions using diagrams, charts, tables, lists, pictographs, bar graphs and line plots. **CT.3.4.2.3** Analyze data that have been collected and organized in order to draw and defend conclusions based on the data.	**CMT 3-5.19 Tables, Graphs and Chart** **A.** Identify correct information from tables, bar graphs, pictographs and charts. **CMT 3-5.19 Tables, Graphs and Chart** **B.** Create bar graphs and pictographs from data in tables and charts. **CMT 6.19 Tables, Graphs and Chart** **A.** Identify correct information from tables, line graphs, bar graphs, seem-and leaf plots, and charts. **B.** Create bar graphs and line graphs from data in tables and charts. **CMT 7.19 Tables, Graphs and Chart** **A.** Identify correct information from tables, graphs, and charts. **B.** Create bar graphs, line graphs and stem-and-leaf plots from data in tables and charts. **CMT 8.19 Tables, Graphs and Chart** A. Identify correct information from tables, graphs and charts. B. Create graphs from data in tables and charts.	CCSS and CT standards focus on picture graphs and bar graphs in Grades 2 and 3. Pictographs are assessed on the Grades 3, 4 and 5 CMT. Bar graphs are assessed on the Grades 3, 4, 5, 6, 7 and 8 CMT.

MEASUREMENT AND DATA			
Represent and interpret data.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.MD.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units-whole numbers, halves, or quarters.	**CT.3.3.3.10** Estimate and measure using nonstandard units and appropriate customary and metric tools and units: • length and perimeter to the nearest 1/4 inch or 1/2 centimeter; • area in square inches or square centimeters; • capacity in cups, pints, quarts, milliliters or liters; • weight in ounces, pounds and grams (*mass in grams*); • temperature to the nearest degree; and • volume using inch cubes and centimeter cubes. **CT.3.4.1.2** Collect and organize data that answer questions using diagrams, charts, tables, lists, pictographs, bar graphs and line plots. **CT.4.3.1.8** Use customary and metric tools and units and non-standard units to estimate, measure and solve problems involving length and perimeter to the nearest quarter-inch or half-centimeter, area, capacity, weight, mass, temperature and volume.	**CMT 4.16 Customary and Metric Measurement** **A.** Measure lengths to the nearest inch, half-inch or centimeter. **CMT 5.16 Customary and Metric Measurement** **A.** Measure lengths to the nearest quarter-inch or half-centimeter.	Measuring lengths using rulers marked with halves and fourths of an inch is included in the Grades 3 and 4 CT standards and is assessed on the Grades 4 and 5 CMT. Creating line plots is not assessed on the CMT.

MEASUREMENT AND DATA			
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.MD.5 Recognize area as an attribute of plane figures and understand concepts of area measurement. **a.** A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. **b.** A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.	**CT.3.3.3.10** Estimate and measure using nonstandard units and appropriate customary and metric tools and units: • length and perimeter to the nearest 1/4 inch or 1/2 centimeter; • area in square inches or square centimeters; • capacity in cups, pints, quarts, milliliters or liters; • weight in ounces, pounds and grams (*mass in grams*); • temperature to the nearest degree; and • volume using inch cubes and centimeter cubes.	**CMT 3-4.15 Approximating Measures** **A.** Estimate lengths and areas by comparing. **CMT 5.15 Approximating Measures** **A.** Estimate lengths and areas. **CMT 6-7.15 Approximating Measures** **A.** Estimate lengths, areas and angle measures. **CMT 8.15 Approximating Measures** **A.** Estimate lengths, areas, volumes and angle measures.	Recognizing area as an attribute of plane figures and understanding concepts of area measurement is not specified in the CT standards.

MEASUREMENT AND DATA			
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.MD.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).	**CT.3.3.3.10** Estimate and measure using nonstandard units and appropriate customary and metric tools and units: • length and perimeter to the nearest 1/4 inch or 1/2 centimeter; • area in square inches or square centimeters; • capacity in cups, pints, quarts, milliliters or liters; • weight in ounces, pounds and grams (*mass in grams*); • temperature to the nearest degree; and volume using inch cubes and centimeter cubes. **CT.4.3.3.8** Use customary and metric tools and units and non-standard units to estimate, measure and solve problems involving length and perimeter to the nearest quarter-inch or half-centimeter, area, capacity, weight, mass, temperature and volume.	**CMT 3-4.15 Approximating Measures** **A.** Estimate lengths and areas by comparing. **CMT 5.15 Approximating Measures** **A.** Estimate lengths and areas. **CMT 5.16 Customary and Metric Measurement** **B.** Measure and determine perimeters and areas. **CMT 6-7.15 Approximating Measures** **A.** Estimate lengths, areas and angle measures. **CMT 8.15 Approximating Measures** **A.** Estimate lengths, areas, volumes and angle measures. **CMT 6-8.16 Customary and Metric Measurement** **A.** Measure and determine perimeter, area and volume. Explain or show how the solution was determined. **CMT 7-8.16 Customary and Metric Measurement** **B.** Determine perimeters, areas and volumes.	The CCSS focuses on finding areas of squares and rectangles in Grades 3 and 4. Measuring areas by counting unit squares is not specified in the CT standards and CMT; however, students may use this as a problem solving strategy.

MEASUREMENT AND DATA			
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.			
CC.3.MD.7 Relate area to the operations of multiplication and addition.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.MD.7a Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.	**CT.5.3.1.2** Develop formulas for finding the perimeter and area of squares, rectangles and triangles and use them to solve problems.	**CMT 5.16 Customary and Metric Measurement** **B.** Measure and determine perimeters and areas. **CMT 6.16 Customary and Metric Measurement** **A.** Measure and determine perimeter, area and volume. Explain or show how the solution was determined. **CMT 7-8.16 Customary and Metric Measurement** **A.** Measure and determine perimeters, areas and volumes. Explain or show how the solution was determined. **B.** Determine perimeters, areas and volumes.	Finding the area of a rectangle by tiling it is not specified in the CT standards and CMT. Developing the formula for area of a rectangle is introduced in the Grade 5 CT standards.
CC.3.MD.7b Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	**CT.3.2.2.14** Solve problems involving the multiplication and division of 2- and 3-digit numbers by 1-digit with models, arrays and pictures of sets. **CT.5.3.1.2** Develop formulas for finding the perimeter and area of squares, rectangles and triangles and use them to solve problems. **CT.6.3.3.8** Select and use appropriate strategies, tools and units to estimate and solve measurement problems involving length, perimeter, area, volume, capacity, mass and weight.	**CMT 5.16 Customary and Metric Measurement** **B.** Measure and determine perimeters and areas. **CMT 6.16 Customary and Metric Measurement** **A.** Measure and determine perimeter, area and volume. Explain or show how the solution was determined. **CMT 7-8.16 Customary and Metric Measurement** **A.** Measure and determine perimeters, areas and volumes. Explain or show how the solution was determined. **B.** Determine perimeters, areas and volumes.	Multiplying side lengths to find areas of rectangles is not specified in the CT standards. Representing whole-number products as rectangular areas is not specified in the CT standards and is not assessed on the CMT.

MEASUREMENT AND DATA			
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.MD.7c Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$; use area models to represent the distributive property in mathematical reasoning.	No match		Using area models to represent the distributive property is not specified in the CT standards and is not assessed on the CMT.
CC.3.MD.7d Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.	**CT.2.3.2.4** Investigate and predict the result of putting together and taking apart two- and three-dimensional shapes in the environment. For example: Use objects to find other shapes that can be made from three triangles or a rectangle and a triangle.		Recognizing area as additive is not specified in the CT standards and is not assessed on the CMT.
CC.3.MD.8 Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different area or with the same area and different perimeters.	**CT.5.3.1.2** Develop formulas for finding the perimeter and area of squares, rectangles and triangles and use them to solve problems. **CT.5.3.2.6** Analyze and describe the effect that changing the dimensions (perimeter) of a polygon has on its area and vice versa.	**CMT 5.16 Customary and Metric Measurement** **B.** Measure and determine perimeters and areas. **CMT 6-8.16 Customary and Metric Measurement** **A.** Measure and determine perimeters, areas and volumes. Explain or show how the solution was determined. **CMT 7-8.16 Customary and Metric Measurement** **B.** Determine perimeters, areas and volumes.	Finding the perimeter of polygons, given the side lengths is included in the Grades 3 and 4 CCSS, but is not introduced until Grade 5 in the CT standards. Finding an unknown side length is not specified in the CT standards and is not assessed on the CMT.

GEOMETRY			
Reason with shapes and their attributes.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.G.1 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	**CT.2.3.1.1** Identify, describe and draw polygons (triangles, quadrilaterals including trapezoids and rhombuses, pentagons and hexagons), solids and other familiar two- and three-dimensional objects in the environment. **CT.3.3.1.1** Identify, describe, construct and draw two-dimensional shapes such as quadrilaterals (including parallelograms), pentagons and hexagons. **CT.3.3.1.3** Compare and classify polygons and solids by using attributes such as the number and length of sides, faces and edges and the number and kinds of angles (acute, right and obtuse), and determine congruence of polygons.	**CMT 3.17 Geometric Shapes and Properties** **A.** Identify and recognize 2-dimensional geometric shapes and figures, including number of angles and sides of polygons. **B.** Draw 2-dimensional geometric shapes and figures. **CMT 4.17 Geometric Shapes and Properties** **A.** Identify 2-dimensional geometric shapes, including number of angles and sides of polygons. **B.** Identify, describe and draw 2-dimensional geometric shapes and figures. **CMT 5.17 Geometric Shapes and Properties** **A.** Identify, describe and/or classify 2-dimensional geometric shapes and figures. **B.** Draw, describe, and/or classify 2-dimensional geometric shapes and figures.	

GEOMETRY			
Reason with shapes and their attributes.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.G.1 (Cont.)		**CMT 6.17 Geometric Shapes and Properties** **A.** Identify and classify 2- and 3-dimensional geometric shapes and figures. **B.** Draw, describe, and classify 2-dimensional geometric shapes and figures. **CMT 7.17 Geometric Shapes and Properties** **A.** Identify, describe and/or classify 2- and 3-dimensional geometric shapes and figures. **B.** Draw, describe, and classify 2-dimensional geometric shapes and figures. **CMT 8.17 Geometric Shapes and Properties** **A.** Identify, describe and classify 2- and 3-dimensional geometric shapes and figures. **B.** Draw, describe and classify 2- and 3-dimensional geometric shapes and figures.	

GEOMETRY			
Reason with shapes and their attributes.			
CCSS	**CT Standard Match**	**CT Assessment**	**Notes**
CC.3.G.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape*.	**CT.2.3.2.4** Investigate and predict the result of putting together and taking apart two- and three-dimensional shapes in the environment. For example: Use objects to find other shapes that can be made from three triangles or a rectangle and a triangle.		Partitioning shapes into equal parts and expressing the area of each part as a unit fraction of the whole is not specified in the CT standards and is not assessed on the CMT.

The following CT standard(s) are not matched to the CCSS and should not be addressed by instruction at this level.

3.3.2.6 Investigate ways to tile or tessellate a shape or region using a variety of polygons.